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December 15, 1996

To: SSA Ken Maxwell

From: SA Dennis R. Smith

Sub: National Transportation Safety Board (NTSB) Safety Recommendation dtd December 13, 1996

The overall feeling of all the parties working at the Calverton facility on determining the cause of the crash of TWA 800 is that they have been blindsided by the NTSB by the December 13 Safety Recommendation. I have included a copy of the Safety Recommendation. The Safety Recommendation is based on speculative theory as unsupported by evidence as any of the wilder theories that have floated through the Calverton facility The real tragedy is that the recommendation is something that the NTSB obviously had been working on for several weeks with minimal input from any of the other parties to the investigation.

On Friday, December 13, 1996 a meeting was hastily called by Bob Swaim, NTSB Systems Group, to explain some tests he was going to be conducting at the Naval Test Center at Pautxant River, Maryland on Thursday, December 19. During his brief meeting he made reference to a Safety Recommendation that was going to come out "this weekend" however Investigator In Charge (IIC) Al Dickinson corrected Swaim and stated the recommendation was coming out that day, December 13. Again, all of this was a complete surprise to all of the parties at Calverton.

Bob Swaim and the NTSB apparently have decided to operate totally outside the Systems Group and further, totally outside of the way that they say they are going conduct aircraft accident investigations with their theory on the cause of the crash of TWA 800. The NTSB investigation was being conducted by the Party system with parties supplying members to various groups who were to carefully and methodically examine the wreckage, write up their findings, agree on the findings, and then see this collection of documents become the basis for a factual report as to what happened to TWA 800. On the basis of the final factual report a cause for the accident could be determined, if possible, and recommendations could then be made. The NTSB appears to be going off on a tangent as exemplified by the December 13 Safety Recommendation that contains recommendations based on information that probably not a single party to the investigation would agree to had they been asked.

The following then are my observations on the Dec. 13 Safety Recommendation:

The first paragraph describes the accident and states that the airplane center wing tank (CTW) exploded at 13,800 feet. We have no had evidence telling investigators where exactly the CWT explosion occurred.

The second paragraph briefly describes debris fields in very simple terms. Evidence has shown that the debris fields are extensive and very much more complex than description provided by the NTSB.

The third paragraph describes the CWT by stating that "The reconstruction thus far shows outward deformation of the CTW walls and deformation of the internal components of the tank that are consistent with an explosion originating within the tank." First of all, I have extensive personal experience with the side walls of the CWT having participated in the reconstruction of these components and to date have not seen evidence that would believe the side walls failed due to an explosion. Those whom I have asked, including the FBI metallurgist, Bill Tobin, have described components of the sides of the tank as having failed in compression and probably at water impact or wing bending. Further, recent briefings of the NTSB Sequencing Group have described the top of the tank as having failed under compression. The description of the CWT in paragraph three does not agree with what the NTSB Structures Group and Sequencing Group are documenting.

Paragraph three states that there is no evidence of bomb or missile damage in the CWT. To date that is correct however there is currently no evidence of anything except what appears to be a conflagration of some sort with no evidence of ignition source in the CWT.

The Safety Recommendation goes on to cite three accidents where explosions occurred in commercial airliners. The first was a 1985 incident in which a Philippine Airlines B-737 blew up as the aircraft was being pushed back from a gate in the Philippines. A defective fuel quantity sensor and damaged wiring was found with that accident however a definitive ignition source was never found. It should also be noted that the B-747 does not have a fuel quantity sensor float switch like the B-737.

The second accident was a B-727 that was brought down by a small bomb. Obvious ignition source. The third accident was an Iranian B-747 that was hit by lightning. Several million volts of electricity in the lightning strike obviously provided an ignition source however it should also be noted that lightning strikes are not that unusual and rarely cause catastrophic damage to an aircraft.

The Safety Recommendation outlines requirements for aircraft design on page 3 then has a very curious paragraph at the beginning of page four. Although the NTSB, and specifically Bob Swaim, advised the various parties to the crash investigation that the results of the Boeing tests that were conducted at Mojave, California could not be used as data for the TWA 800 investigation because the party system was not used and the criteria for the test was not agreed to by the NTSB Systems

Group, those very test results become the basis of the NTSB Safety Recommendation.

The NTSB and Bob Swaim are in the process of showing that TWA 800 was brought down by a flammable mixture in the fuel tank and a static electric spark caused by a wiggins fixture in the crossfeed manifold. To date a CWT explosion has not been documented by static electricity. In the case of TWA 800 most parties agree that a conflagration of some sort occurred in the CWT. The most casual observation by anyone will tend to make one believe that the conflagration occurred somewhere in the center of the tank. The physical evidence shows the internal cross members of the tank moved outward (fore and aft) from the center of the tank. The crossfeed manifold runs across the CWT at the very back of the tank. A static electrical discharge would have to ignite fuel vapors in the rear of the tank that would then carry a flame front forward to the center of the tank where the major conflagration appears to have occurred.

The TWA 800 NTSB crash investigation, if allowed to follow the normal procedures of the NTSB utilizing the expertise of all of the parties should be allowed to continue through to its logical conclusion and not be sidelined by a single theory that the NTSB appears to want to use to turn off the lights at the Calverton facility, dispose of the wreckage, raise havoc within the commercial aircraft community, and send everyone home Both the NTSB and the FBI should run their concurrent investigations until all possible evidence has been examined (and maybe re-examined-by a "Second set of eyes" as the NTSB would put it) and all possible leads have been considered.

The Safety Recommendation made by the NTSB is premature and ill timed. The investigation into the cause of the crash of TWA 800 is far from over.